

## Class Summary (Hind paper)

12-11-2001

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### Issues

- Terminology - the literature has way to many ways of saying the same thing.
- Metrics - it is remarkably difficult to tell how good a given analysis really is.
- Reproduction of Results - repeating the results of others is apparently frowned on and not considered worth publishing. This probably exacerbates the previous two problems.

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### Open Questions

- Calability - different methods can have very different worst case times but even those aren't always accurate for real applications.
- Improving Precision - not all analyses need to be that precise. There is also the question of how much more precision benefits us in reality.

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### Open questions (Q1)

- Customized Analysis - how we answer the previous two questions depends on exactly what we are trying to do.
- Flow and Context Sensitivity - what do they really gain for us and do we really need them all the time?
- Gap Modeling - this seems like something we really need to do especially with languages like Java but it doesn't scale well.

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### Open questions (Q2)

- Modeling aggregates - how important is it to distinguish between the pieces of aggregates. That might depend on the language.
- Demand driven analysis - don't do it until you need to.
- Java and C++ - little work has been done in this field so far.
- Incomplete programs - conservative assumptions

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### Reviewies Class and Discussion

- This course was on what might seem like an esoteric subject. Do you have some appreciation for why we care about it?
- What do you view as the main objectives for pointer analysis in the next decade?
- Objectives - how well were they met?
  - Did you get an introduction to pointer analysis.
  - Did you get to read higher level papers and stretch your brains a bit.

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